

OTC 3rd Lane Widening

PROJECT DESCRIPTION

The Ohio Turnpike Commission is in the process of increasing the capacity of the Turnpike mainline in order to alleviate current congestion and increase safety. This project required The Mannik and Smith Group, Inc. (MSG) to prepare construction plans for the widening of a 4.6 mile section of the Ohio Turnpike. This project was part of the initial phase of the planned third lane expansion of 168 miles of the Turnpike mainline.

The design involved adding a third lane on the median side of the divided highway in both directions of travel. The design incorporates a median barrier and reconstruction of the existing median drainage system. MSG's design engineers were challenged to develop a maintenance of traffic scheme that would accommodate two lanes of traffic traveling in each direction while allowing a means of ingress and egress for the contractors' equipment and construction materials. This was accomplished by devising a staged construction strategy. Realizing that any disabled vehicle could virtually bring traffic on the turnpike to a halt during construction, MSG engineers developed a means to provide access for all disabled vehicles.

Included with the project was the widening of six mainline bridges. The structural design incorporated widening of the existing cellular abutments and piers, addition of new steel stringers, and new concrete decks and parapets. In order to not disrupt traffic, plans included replacement of existing bearings under live load conditions.

To accommodate an accelerated construction schedule, MSG was able to complete the plans and specifications for the over \$8 million dollar project and deliver final tracings on budget in less than six months (including review time.)



LOCATION
Toledo, Ohio

CLIENT
Ohio Turnpike Commission

- SERVICES PROVIDED**
- ◆ Design Survey
 - ◆ Road Design
 - ◆ Construction Inspection
 - ◆ Hydraulic Evaluation
 - ◆ Navigation Lighting Design



*I-80/90
Third-Lane
Construction*



*I-80/90
Project Area*